

**REMARKS****I. Prosecution History.**

Claims 1-78 were originally submitted for examination with filing of the present nonprovisional patent application, which claims priority to provisional patent application 60/214,339 filed June 27, 2000. Four groups of claims were identified in a four-way restriction, of which Applicant selected Group I, Claims 1-31, for examination. Claims 32-78 remain withdrawn from examination.

In the first Office Action, the elected claims, 1-31, were rejected by the Examiner under 35 U.S.C. §102(e) and §103(a). More particularly, Claims 1 - 11 and 14 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,625,580 (hereinafter referred to as "Tayama"), while Claims 12 was rejected under 35 U.S.C. §103(a) as being unpatentable over Tayama in view of U.S. Patent No. 6,076,167 Issued to Borza (hereinafter referred to as "Borza"), and 13 and 15-31 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tayama in view of U. S. Patent No. 6,360,101 issued to Irvin (hereinafter referred to as "Irvin"). In response, the applicant amended Claims 1-2, 4-9, 13-19, 22, 25-32; and added new claims 79-104.

In the second Office Action dated 8/12/04, made Final, the Examiner rejected claims 1-4, 30, 31, 79, 80, 82, 83, 85-86, 89-93 and 98-105 under 35 U.S.C. §102(e) as being anticipated by *Eldridge et al.* Claims 5, 87 95 and 96 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Eldridge et al* in view of *Kaplan*. Claims 6-9, 13, 15-20,22-24,26,28 and 29 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Eldridge* in view of *Cromer et al.* Claims 10 and 21 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Eldridge* in view of *Challener et al.* Claim 12 was rejected under 35 U. S. C. §103(a) as being unpatentable over *Eldridge* in view of *Cromer*, and further in view of *Borza*. Claim 14 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Eldridge* in view of *Ronen*. Claims 81 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Eldridge* in view of *Boyle*. Claims 88 and 94 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Eldridge* in view of *Magro et al.* Claims 11 was rejected under

35 U.S.C. §103(a) as being unpatentable over *Eldridge* in view of *Cromer*, and further in view of *Magro*. Claims 25 and 27 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Eldridge* in view of *Cromer*, and further in view of *Kaplan*. Finally, claim 97 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Eldridge* in view of *Kaplan*, and further in view of *Magro*.

An RCE was filed by Applicant on January 12, 2005 together with a preliminary amendment in response to the Final Office Action. In the preliminary amendment, claims 5, 25-29, 83-87, 95, 96 and 103 were cancelled and claims 1, 7, 8, 15-19, 30, 31, 79 and 100 were amended. Claims 1-4, 7-24, 30, 31, 79-82, 88-94, 97-102, and 104-105 remained pending in the application. Claims 32-78 remained withdrawn.

A First Office Action following the RCE filing is dated April, 22, 2005 was received. In the official action claims 1-4, 6-9, 13, 15-20, 22-24, 30, 31, 79, 80, 82, 89-93, 98-102, 104 and 105 stood rejected under 35 U.S.C. §103(a) as being unpatentable over *Eldridge* in view of *Cromer*. Claims 10 and 21 stood rejected under 35 U.S.C. §103(a) as being unpatentable over *Eldridge* in view of *Cromer* and further in view of *Challener* et al. Claims 11, 88, 94 and 97 stood rejected under 35 U.S.C. §103(a) as being unpatentable over *Eldridge* in view of *Cromer* further in view of *Magro* et al. Claims 12 stood rejected under 35 U.S.C. §103(a) as being unpatentable over *Eldridge* in view of *Cromer* further in view of *Borza* et al. Claims 14 stood rejected under 35 U.S.C. §103(a) as being unpatentable over *Eldridge* in view of *Cromer* further in view of *Ronen* et al. Claims 81 stood rejected under 35 U.S.C. §103(a) as being unpatentable over *Eldridge* in view of *Cromer* further in view of *Boyle* et al.

In response to the First office action, claims 4-6, 13, 24-29, 79-87, 95-96 and 101-104 were cancelled by Applicant. Applicant has amended claims 1-2, 7-8, 10-12, 14-16, 30, 97 and 100. New claims 106-112 were added.

In response to the Amendment to the first office action, a Second Official Action, made FINAL, was been rendered on November 23, 2005. Claims 1-3, 7-12, 14-23, 30, 31, 88-94, 97-100 and 105-117 were rejected under the Second Office action. References cited to reject the claims under 35 U.S.C. 102

and 35 U.S.C. 103 Include Yocoub (US Published Application 2003/0011805) and Eldridge et al (US Patent 6,515,988).

In response to the Final Rejection, on February 23, 2006 Applicant filed an amendment to the claims and presented remarks distinguishing the cited art from the claims. On 3/27/2006 an advisory action was issued by the Examiner indicating that amendments would not be entered.

On April 21, 2006, Applicant filed another RCE and included the un-entered amendment from 2/23/2006 as his submission with the RCE.

On July 17, 2006, a first office action was rendered by the Examiner. Under the first office action, claims 1-3, 7-9, 15-20, 22, 23, 30, 31, 89-93, 98-100, 105-107, 112, 113 and 115-117 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Theimer et al (U.S. Patent No. 5,793,630) in view of Robertson (U.S. Pub. No. 2001/0047441). Claims 10, 21 and 114 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Theimer in view of Robertson and further in view of Challener et al (U.S. Patent No. 6,591,297). Claims 11, 88, 94 and 97 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Theimer et al in view of Robertson and further in view of Magro et al (U.S. Patent No. 6,457,078). Claim 14 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Theimer et al in view of Robertson and further in view of Ronen (U.S. Pub. No. 2002/0156708). Claims 108-111 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Theimer et al in view of Robertson and further in view of Yacoub et al (U.S. Pub. No. 2003/0011805). Applicant submitted a response and amendment on November 20, 2006 for the purpose of clarifying the claims and distinguishing the invention from cited reference of record.

A Final office action was received, dated February 22, 2007, wherein claims 1, 15, 30 and 100 stood objected to ; claims 1-2, 7-9, 15-20, 22, 223 30, 31 89-93, 98-100, 105-113 and 115-117 stood rejected as being unpatentable over Theimer in View of Haartsen (US Patent no. 6,574,266); claims 10, 21 and 114 stood rejected as being unpatentable over Theimer in view of Haartsen and further in view of Challener et al; and claim 11, 88, 94 and 97 stood

rejected as being unpatentable over Theimer in view of Haarsten and further in view of Margo et al.

In response to the latest final rejection, Applicant submitted an amended independent on May 22, 2007, to claims 1, 15, 30 and 100 to overcome a minor objection by eliminating the redundant word "an" from the claims; otherwise, additional substantive amendment of the claims was not seen as necessary given the teachings of Theimer and Haartsen, which were the primary references against Applicant's claims. Therefore, Applicant submitted remarks pointing out the distinctions between his invention and the cited art.

An Advisory Action dated 5/31/2007 was received from the Office wherein the minor amendment was entered, but the rejections based on Theimer and Haartsen were maintained.

Applicant amended his independent claims to provide more clarification for the Office.

In an office action dated September 10, 2007, claims 1-3, 7-9, 15-20, 22, 23, 30, 31, 88-93, 98-100 and 105-113, and 115-117 once again stand rejected under 35 U.S.C. 103 as being unpatentable over Theimer et al in view of Haartsen. Claims 10, 21 and 114 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Theimer in view of Haartsen and further in view of Challenger et al. Claims 11, 88, 94 and 97 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Theimer in view of Haartsen and further in view of Magro et al. Claims 14 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Theimer in view of Haartsen and further in view of Ronen. Applicant has amended independent claims 1, 15, 30, 100 and 106 again in hopes of providing more clarity and distinction from the cited art. Dependent claims 90 and 91 have also been amended. All amendment find support throughout the specification and drawings as originally filed.

Reconsideration is again respectfully requested based on the amendments and the following remarks.

## II. Features of the Invention Summarized.

Independent claim 1, 15, 30, 100 and 106 claim variations of Applicant's invention but commonly include the following novelty: methods enabling handheld wireless device users to request assistance over wireless telecommunications communications networks for a network resource to help the user locate a publicly accessible data rendering devices (DRDs), such as a printer, a video monitor, an Internet Kiosk, a multimedia projector, or an ATM machine, that has not previously been assigned to the WD and are physically located in a publicly location that is unknown to but openly accessible to the public. The cited art does not offer the important feature of the present Invention is that provides that wireless device users can use their WD and supporting network resources to locate publicly available DRDs whose location is not previously known to the user or the WD, and location is based on at least one of the geographic location of the wireless device and a user requirement or profile. Furthermore, as now provided via amendment, the prior art does not provide directions to a wireless device user to physically locate a data rendering device.

As compared to the cited art, DRDs in accordance with the teaching of Applications invention are truly public in that their location is often not already known by or considered by the handheld device user when requesting the assistance of a network to find one, and the DRD is made available to the public at large, meaning that it is an unassigned or undedicated resource (in other words the mobile handheld wireless device users has no idea where most publicly available DRDs are within a city or public place, so one or many DRD must be located for the user with the help of public telecommunications equipment and associated networks, and location is based on the handheld device user's physical location and/or profile).

Direction to the DRD can be provided to a WD user based on the geographic location of the WD. This assists the user in physically locating a publically accessible DRD whose location is not previously known to the user.

Yet another important feature of the present invention not taught or suggested by the prior art is the ability to use a network resource to check on

the operational readiness of data rendering devices prior to sending a WD user to the DRD's location. Applicant's claims as amended fully support the above-described methods and capabilities and are supported by the extensive specification submitted by Applicant.

### **III. Rejection of claims over Theimer in view of Haartsen.**

Claims 1-3, 7-9, 15-20, 22, 23, 30, 31, 88-93, 98-100 and 105-113, and 115-117 are once again stand rejected under 35 U.S.C. 103 as being unpatentable over Theimer et al in view of Haartsen. Claims 10, 21 and 114 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Theimer in view of Haartsen and further in view of Challener et al. Claims 11, 88, 94 and 97 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Theimer in view of Haartsen and further in view of Magro et al. Claims 14 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Theimer in view of Haartsen and further in view of Ronen.

Applicant will again focus his remarks in addressing the patentability of independent claims 1, 15, 30, 100 and 106, as now newly amended, over Theimer and Haartsen.

#### **Theimer et al.**

Theimer et al ("*Theimer*") does not teach the use of a cellular telecommunications network and is primarily directed at a system for transferring digital information between "spatially localizable" electronic devices (including portable devices) using a dedicated wireless communication network, which is a network *that is not "Public" but is actually known to and by devices in communication with the network*. It is clearly described by Theimer that its preferred embodiment that CCD cameras would ideally be used to determine the physical location of an electronic device is a defined space (e.g., a single room) given the close spatial proximity of the electronic device described therein. The main thrust of Theimer is clearly to enable the short range (or defined range) transfer of data to select devices that are located near

each other in the proximity of other electronic devices that should not receive the transfer. Spatial location control as taught by Theimer enables users to control what portable devices receive a transfer from another portable device. The primary intent is for the "adjacent transfer" of data from one portable device, such as a PDA, to one or a select group of devices, such as other PDAs, in close proximity to the transferring device.

Applicant has accurately pointed out that Theimer is actually only actually interested in submeter applications and specifically suggests at Column 2, lines 8-13 that it is preferable that:

**"a range of spatial locations and orientations can be specified with transmission to adjacent electronic devices, to all electronic devices in a room, to all electronic devices in a particular orientation or direction, or even to all electronic devices at spatial locations within a specified range (e.g., within two meters)."**

Theimer goes further by states that a user of the electronic devices (e.g., located within the same room) can "define electronic data transfers between portable electronic devices in user determined spatial locations with submeter precision."

*Theimer* clearly suggests that its features are most evidently advantageous when used in submeter applications and shows examples within the same physical space (i.e., a room) where IR transmitters and CCD cameras enable highly precise spatial location of tagged electronic devices.

Theimer does not teach rendering of data, only the transfer of data from one device to another. Rendering (e.g., printing, displaying) is what should occur after data is transferred into a device.

Theimer does not provide directions from a first device to another using the geographic location of the first device. This is clearly because the physical location of devices taught in Theimer is already known and it is merely the spatial location of each device therein that is of interest to Theimer.

**Haartsen**

*Haartsen* is cited in combination with *Theimer*; but *Haartsen* also does not teach use of a cellular telecommunications network resources to help a wireless device user find a data rendering device. *Haartsen* does not provide wireless device user with directions to data rendering devices.

**Theimer combined with Haartsen**

*Theimer* when combined with *Haartsen* are both still primarily focused on "short range" applications. *Theimer* combined with *Haartsen* do not teach the use of wireless cellular telecommunications resources to help a wireless device user locate publicly accessible data rendering devices, such as printers, video monitors, ATMs, internet kiosks, projectors, whose physical locations are not previously known to the wireless device user, and also provide directions to the data rendering devices based on the wireless device's geographic location. *Theimer* combined with *Haartsen* do not reach that wireless device users are provided with directions to physically located data rendering devices based on the geographic location of the wireless device because *Theimer* and *Haartsen* are not concerned with finding an unknown data rendering device. The general physical location of the data rendering devices in *Theimer* and *Haartsen* are already known to the transferring wireless device user. Furthermore, *Theimer* combined with *Haartsen* do not teach the location of a data rendering device based on the wireless device's geographic location and a user's rendering criteria.

Independent claims 1, 15, 30, 100 and 106 have been amended to more clearly provide for these and other distinctions, and are rewritten below for Examiner's reference:

1. A method of brokering data between handheld wireless devices and publicly available data rendering devices with locations and capabilities not previously known to the handheld wireless devices or their users, comprising:



identifying data from a handheld wireless device (WD) for rendering at a publicly accessible data rendering device (DRD) located at a fixed, publicly accessible location not yet known to said WD or its user;

providing a request from said WD through a wireless telecommunications network supporting voice and data communications by said WD to a remote network resource for said remote network resource to locate at least one DRD, said at least one DRD further comprising at least one of a printer, a video monitor, an Internet Kiosk, a multimedia projector, or an ATM machine, said network resource further adapted to identify the location, rendering capabilities and operational status of at least one DRD in accordance with at least one of said WD's geographic location and a WD user profile associated with said WD;

said network resource identifying the location, rendering capabilities and operational status of at least one DRD based on at least one of said WD's location and said WD user profile;

said network resource providing said WD with location information for at least one publicly accessible DRD;

selecting a DRD with said WD;

at least one of said WD, said wireless telecommunications network and said network resource providing navigable directions on said WD to physically locate a DRD selected with said WD based on the geographic location of said WD; and

transferring said data at the request of said WD to said DRD from at least one of an email box or a memory associated with said WD, said data transferred to said DRD for rendering.

15. A method of brokering data between a wireless device (WD) and a publicly accessible data rendering device (DRD), the DRD further comprising at least one of a printer, a video monitor, an Internet Kiosk, a multimedia projector, or an ATM machine, wherein the DRD is not assigned to the WD, the DRD's physical location is not known by the WD and its user, and the DRD is publicly accessible to all WD users, wherein a WD user performs the following steps at the WD:

identifying data with the WD to render at a publicly accessible DRD;

providing a DRD locator request with the WD to public communications network resources through a wireless cellular communications network supporting wireless voice and data communications by the WD, the DRD locator request being provided for said public communication network resources to find at least one publically accessible DRD located near the WD, the locator request further including WD geographic location information;

receiving DRD location information and rendering capabilities at the WD for the at least one publicly accessible DRD located near the WD, wherein DRD location information is based on said WD geographic location information;

selecting a DRD with the WD for rendering said data;

providing directions to the WD to physically locate the DRD selected by the WD, said directions provided to the WD from at least one of the WD and the network resource based on the WD geographic location information;

physically locating the DRD at the DRD's publicly accessible location; and

requesting at the WD that the data be transferred to the DRD through at least one of said public wireless cellular communications network and a short range wireless communications link with the DRD.

30. A method of brokering data between wireless devices and publicly accessible data rendering devices, comprising enabling a user of a wireless device to perform the following steps:

using a wireless device (WD) to request support through a wireless cellular telecommunications network to a remote server adapted to maintain location and capability information for data rendering devices, to locate at least one publicly accessible data rendering device (DRD) and provide publicly accessible DRD capability information stored in the remote server, and wherein the at least one DRD is not previously assigned to the WD and its location not previously known to the WD or its user, and the at least one DRD is physically accessible to all WD users, wherein locating of at least one DRD is executed facilitated by said remote server in cooperation with the wireless cellular telecommunications network in accordance with at least one of a WD user profile and the geographic location of the WD;

receiving DRD location and capability information at the WD for the at least one DRD located near the WD;

selecting a DRD with said WD for rendering data;

the network resource verifying operational readiness of the DRD selected by the WD and providing directions on the WD for the user to follow to physically locate the DRD selected with the WD if the DRD selected by the user is deemed operational, the directions provided to the WD based on the geographic location of the WD;

selecting data with the WD for rendering at the DRD once the DRD has been physically located by the user; and

providing the data from at least one of a memory and email box associated with the WD, at the request of the WD, to the DRD for rendering.

100. A method using a wireless cellular telecommunications network adapted for supporting wireless hand held device users in voice and data communications and with brokering data between handheld wireless devices and publicly accessible data rendering devices where physical locations for publicly accessible data rendering devices are not previously known to the wireless hand held device users, steps of the method carried out by a hand held wireless device user comprising:

providing a request over the wireless cellular telecommunication network from a handheld wireless device (WD) to a remote data network resource to locate at least one publicly accessible data rendering device (DRD) and identify operational readiness and rendering capabilities for the at least one publicly accessible DRD matching user requested rendering capabilities also provided from the WD, said remote data network resource adapted to provide assistance to WD users to locate and assess publicly accessible DRDs by determining WD geographic location, locating at least one operational DRD located near ~~said the~~ WD based on the WD geographic location and DRD rendering capabilities, and then identifying on the WD at least one DRD that is operational, matches user requested rendering capabilities and is geographically located near the WD;

receiving location information for at least one publicly accessible DRD at the WD from the network resource through the wireless cellular telecommunications network supporting wireless communication by the WD, said location information identifying at least one DRD geographically located near the WD that is operational and matches user rendering capabilities;

selecting only one DRD from the at least one publicly accessible DRD using the WD;

obtaining directions to the only one DRD using at least one of the WD, the wireless cellular telecommunications network, and GPS based on the geographic location of the WD;

selecting data for rendering at the DRD using the WD after the only one DRD is physically located; and

transferring data using the WD to the DRD for rendering.

106. (Currently amended) A location based service method using data communications network resources to assist a user of a GPS-enabled hand held wireless device supported by a wireless cellular telecommunications network to locate a publicly accessible data rendering device (DRD) whose location is not previously known to the user, the publicly accessible DRD comprising at least one of a printer, video monitor, an Internet Kiosk, a multimedia projector, or an ATM machine, the method comprising the steps of:

receiving a user request provided over the wireless cellular telecommunications network from a user of the GPS-enabled hand held wireless device to a data communications network resource for assistance in locating a publicly accessible DRD based on geographic location information for the GPS-enabled wireless hand held device, rendering capabilities required by the user, and operational readiness of publicly accessible DRDs;

the data communications network resource determining the geographic location of the GPS-enabled hand held wireless device;

the data communications network resource using the geographic location of the GPS-enabled hand held wireless device to locate at least one publicly accessible DRD located near the GPS-enabled hand held wireless device that is operational and matches the rendering capabilities required by the user;

the data communications network resource identifying the at least one publicly accessible DRD including its geographic and physical location to the GPS-enabled hand held wireless device;

the user selecting only one publicly accessible DRD for rendering data; and

the GPS-enabled hand held wireless device with the support of at least one of GPS and the wireless cellular telecommunications network providing the

user directions to physically locate the only one publicly accessible DRD given the geographic location of the GPS-enabled hand held wireless device.

In summary, Applicant's claimed invention satisfies a long felt but unfulfilled need for roaming wireless device users such as business travelers to be able to find the unknown location of publicly available data rendering devices so that the roaming wireless device user can view or print electronic documents that are not easily viewable over their wireless handheld devices. *Theimer* in combination with *Haartsen* does not address or fulfill this need, nor does the combination suggest it. *Theimer* in combination with *Haartsen* is really concerned about short range needs of wireless device users, where the location of electronic devices are impliedly known given the short effective range of the proposed combination (32feet/10meters). None of the art when combined actually teaches or suggests the use of wireless telecommunications networks to locate data rendering devices based on wireless device location that include rendering capabilities required by a wireless device user, and then provide the wireless device user with directions over the wireless device to physically find the data rendering device, which is publicly accessible.

**VI. Conclusion**

In view of the foregoing remarks, the applicant submits that Claims 1-3, 7-9, 15-20, 22, 23, 30, 31, 89-93, 98-100, 105-107, 112, 113 and 115-117, which remain pending in the application, are novel over and not obvious in view of the references made of record, and further that the claims are in allowable form. Accordingly, Applicant earnestly solicits the favorable consideration of his application, and respectfully request that it be passed to issue in its present condition.

Should the Examiner discern any remaining impediment to the prompt allowance of the aforementioned claims that might be resolved or overcome with the aid of a telephone conference, he is cordially invited to call the undersigned at the telephone number set out below.

Respectfully submitted,

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